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EXAMINER
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2135	

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2001*.
2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-20* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *18 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some *   c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Cornelius et al (hereinafter Cornelius), US Publication 2003/0165136, in view of

Jade et a (hereinafter Jade), US Patent 5,944,823, and further in view of Berg et al

(hereinafter Berg), US Patent 6,674,713.

As per claim 1, Cornelius discloses a high-level application with a user

interface that receives a command from the user to communicate with the remote

client (see for example; paragraph 46); a transport layer, coupled to the high-

level application, for generating and receiving Transport-Control-Protocol (TCP

packets and User Datagram Protocol (UDP) packets (see for example;

paragraphs 8 and 33);

A socket subsystem, receiving TCP and UDP packets from the transport

layer, for sending and receiving packets from an external network connected to

the remote client (see for example; paragraph 33) and an external manager (see

for example; external mechanism, paragraph 39) remote client and the external

manager separated from the local client by local firewall (see for example; fig 3)

that protects the local client from un-requested packets; and

A packet generator, coupled to the high-level application, for generating a

UDP packet to a remote UDP port of the remote client in response to a TCP

packet from the external manager (see for example; paragraph 50) that contains

an address of the remote client with an identifier from the remote UDP port, the

transport layer and the socket subsystem sending the UDP packet from the local

UDP port through the local firewall toward the remote client (see for example;

paragraph 50). Cornelius discloses that an external manager (see for example;

call control mechanism, paragraph 34) communicates information about the call

to both the source and destination system. And that all control information is

communicated using TCP/IP (see for example; paragraph 33).

Wherein the local firewall opens a window between the local UDP port and

the remote UDP port in response to the null UDP packet (see for example;

paragraph 30), the socket subsystem and transport layers receiving UDP packets

containing user data from the remote client through the window in the local

firewall (see for example; paragraph 32).

As for the window in the local firewall being opened by the UDP packet

sent in response to the TCP packet from the external manager. Cornelius

discloses a system administrator setting the correct UDP port for communication

through the user firewall (see for example; administrator, paragraph 39). The

opening of a window in a firewall through a transmission of packets is well known

in the art as suggested by Jade. Jade discloses opening a hole in the firewall

through a packet transmission (see for example; col 4 ln 25-39). One of ordinary

skill in the art at the time of the applicant's invention would have realized that

such a means of configuring communication through a firewall would require

some means of opening a hole in the firewall and that the means of Jade can be

used as such a configuring step. It would have been obvious to one of ordinary

skill in the art at the time of the applicant's invention to combine the firewall

opening means of Jade within the system of Cornelius because it would have

provided a means of opening a hole in a firewall for communication with minimal

input from the user.

As for the UDP packet being a null UDP packet, Cornelius-Jade does not

explicitly teach the initial UDP packet being a null packet. Berg et al discloses a

means of communication involving the use of null packets (see for example; col

18 ln 24-33 and col 18 ln 42-48). The use of null packets is well known in the art

as a means of transmitting a packet containing header information for

synchronization or to keep a communication connected without using

communication bandwidth. Such null packets are for administrative purposes of

communications, which requires minimal bandwidth of a communications link,

and are used in situations where no user data is required (see for example; Berg,

col 22 ln 25-44). One of ordinary skill in the art at the time of the applicant's

invention would have been able to use such a null packet as the "data segment"

in the Cornelius-Jade combination to open a hole in the firewall. Furthermore,

one of ordinary skill in the art would have realized that such opening by sending

an initial UDP packet is well known in the art and that such packets do not

require any payload information to be present to perform transmission. Furthermore, Jade does not explicitly state any payload information necessary in the data segments for opening a hole in the firewall. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the null UDP packet of Berg within the Cornelius-Jade combination because it would have provided an efficient means of opening a hole in the firewall wherein the packet takes up the minimum bandwidth in establishing the communication link.

As per claim 2, Cornelius-Jade discloses the claimed limitations as described above (see claim 1) and further discloses a multimedia subsystem (see for example; paragraphs 37 and 60), coupled to the high-level application, for receiving voice from the user for transmission to the remote client in the UDP packets, and for playing as audio sounds to the user the user data received from the remote client in the UDP packets (see for example; paragraph 60).

As per claim 3, Cornelius-Jade discloses the claimed limitations as described above (see claim 2) and further discloses a registration module, in the high-level application, for instructing the transport layer and socket subsystem to send a registration packet to the external manager (see for example; paragraph 33), the registration packet being a TCP packet that contains an identifier for the local UDP port (see for example; control message via TCP, paragraph 33,

whereby the registration module registers the local UDP port with the external

manager using a TCP packet (see for example; paragraphs 33-34 and 38). Each

control mechanism has a configuration database, wherein corresponding

addresses and ports for different end point. Furthermore, such information must

be registered with the external manager (control mechanism) to monitor control

of the packets being received and transmitted (see for example; paragraph 58).

As per claim 4, Cornelius-Jade discloses the claimed limitations as

described above (see claim 2) and discloses a reply module, in the high-level

application, for instructing the transport layer and socket subsystem to send a

reply packet to the external manager (see for example; paragraphs 69-71). As

for the reply packet being a TCP packet, Cornelius discloses that such control

information is transmitted through TCP (see for example; paragraph 33). As for

the reply message indicating to the external manager that the UDP packet has

been sent to open the window in the local firewall, whereby the reply module

indicates transmission of the null UDP packet using a TCP packet to the external

manager, Cornelius discloses reply messages for signaling the completion of

specific tasks during creation of a UDP packet, and thus such replies indicate the

UDP packet being sent.

As per claim 5, Cornelius-Jade-Berg discloses the claimed limitations as

described above (see claim 4). Berg further discloses the UDP packet has a

data payload size of zero (see for example; col 22 ln 25-33; such data payload

size is inherent to the definition of a null packet), and a message identifier that

identifies the null UDP packet a being a null packet (see for example; control bits,

col 18 ln 22-33). As for the UDP packet containing no audio data played to a

user, Berg further discloses the null UDP packet containing no user data (see for

example; col 22 ln 25-33). Cornelius-Jade-Berg is directed to a means of

communication using Internet Protocol. Furthermore, Cornelius discloses the

use of such Internet Protocol to carry audio data (see for example; internet

telephony, abstract). One of ordinary skill in the art at the time of the applicant's

invention would have realized such packets containing user data, which pertains

to the audio data sent between two parties of an internet telephony call. The null

UDP packet opening the window in the local firewall is rejected under the same

rationale as claim 1 above.

As per claim 7, Cornelius-Jade discloses the claimed limitations as

described above (see claim 2) and further discloses a two-way direct

communication channel between the local UDP port of the local client, and the

remote UDP port of the remote client (see for example; fig 3), wherein UDP

packets containing audio or video data are transmitted in two directions between

the remote and local clients through the window in the local firewall (see for

example; paragraphs 37 and 49).

3.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cornelius

et al (hereinafter Cornelius), US Publication 2003/0165136, in view of Jade et a

(hereinafter Jade), US Patent 5,944,823, in view of Berg et al (hereinafter Berg), US

Patent 6,674,713, and further in view of Fan et al (hereinafter Fan), US Patent

6,219,706.

        As per claim 6, Cornelius-Jade-Berg discloses the claimed limitations as

described above (see claim 5). As for TCP connection to the external manager

initiated by a SYN packet, a SYN+ACK packet, and an ACK packet, Cornelius is

silent on such initiation packets. However, one of ordinary skill in the art at the

time of the applicant's invention would have realized that an initiation between

two parties must exist in order for communication to take place. Berg further

discloses initiation using SYN, SYN+ACK, and an ACK packet (see for example;

col 18 ln 23-67) as applied to initiation using UDP. Both TCP and UDP are

implemented over Internet protocol (IP) and that such use of packets for

initialization in TCP is well known in the art as disclosed by Fan (see for example;

col 8 ln 38-48). Such connection method is well known in the art to be a

standard for initiating TCP communications with higher security through proper

acknowledgement of the requests. It would have been obvious to one of ordinary

skill in the art to combine the TCP connection initiation of Fan within the

Cornelius-Jade-Berg combination because it would have provided a secure and

reliable connection means between two points in a network. As for the TCP

connections being made to the external manager, but UDP packets flow between

the local client and remote client wherein the external network is an Internet.

Cornelius discloses TCP connection for communicating control information and

UDP connection for packet flows (see for example; paragraphs 33-34).

4.   Claims 8-9 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Jade et a (hereinafter Jade), US Patent 5,944,823, in view of Cornelius et al

(hereinafter Cornelius), US Publication 2003/0165136.

As per claim 8, Jade discloses sending a call request from the first

computer to a third computer (see for example; col 4 In 1-5), the call request

identifying the second computer (see for example; col 4 In 5-14);

Sending a message from the third computer to the second computer in

response to the call request (see for example; col 4 In 15-23).

Receiving the message at the second computer (see for example; col 4 In

15-26) and generating a firewall-opening packet that is destined to the first

address of the first computer; sending the firewall-opening packet from the

second computer toward the first computer (see for example; data connection

segments col 4 In 25-39);

Opening a window in a firewall that protects the second computer from the

receiving un-requested packets when the firewall-opening packet is sent by the

second computer, the window allowing packets from the first computer to reach

the second computer through the firewall (see for example; completing a data

connection col 4 In 25-39;); and

Sending communication packets from the first computer to the second

computer through the window in the firewall created by the firewall-opening

packet sent by the second computer in response to the message from the third

computer (see for example; col 4 ln 40-50). As for the window in the firewall

protecting the second computer being created for use by the first computer,

whereby the window in the firewall protecting the second computer is created for

use by the first computer. Such protection is well known in the art to be the

purpose of such firewalls and communicating with opening a window in the

firewall (see for example; Jade, col 1 ln 10-24).

As for direct communication packets from the first computer to the second

computer, Jade discloses that communication is established between an third

computer and a second computer wherein communication between the first and

second computer is done through the third computer (see for example; col 4 ln

25-38). Cornelius discloses a means of establishing direct connections between

two computers for communication of media data (see for example; paragraph

37), wherein control communication is established using TCP and media packets

are transmitted via UDP (see for example; paragraphs 33-34). Such direct

connection means are well known in the art to increase transmission speed by

eliminating the middle (third) computer when sending such streams. Such

transmission speed is needed in transmitting and receiving multi-media streams,

such as voice-over-Internet-Protocol (see for example; Cornelius, paragraph 45).

One of ordinary skill in the art at the time of the applicant's invention would have

realized that such control communication being through a central control (external) manager of Jade and use of control protocol of Cornelius in setting up direct communication between a first and second computer. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine such direct communication of Cornelius within the system of Jade because it would have increased the communication speed between two computers and also eliminated process load on the third computer during transmission of media streams. Furthermore, the need of such a method a means of performing communication requests from outside a firewall to inside a firewall of Jade with communication of multimedia streams between two computers is needed due to the increase in audio communications taking place as suggested by Cornelius (paragraph 7).

As for the message identifying a first address of the first computer, Cornelius further discloses a message identifying such an address (see for example; paragraph 34). One of ordinary skill in the art at the time of the applicant's invention would have realized such a message for direct communications to the first computer from a second computer in the Jade-Cornelius combination.

As per claim 9, Jade-Cornelius discloses the claimed limitations as described above (see claim 8). Jade further discloses that any type of protocol (packets) can be used for communication (see for example; col 4 ln 40-49).

Cornelius further discloses direct communication packets are UDP packets (see for example; paragraph 33) and that such UDP packets provide a better communication of audio streams due to the timely aspects (see for example; paragraph 45). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the UDP packets of Cornelius within the system of Jade because it would have provided a better protocol for transmission of audio and other multimedia streams.

As per claim 12, Jade-Cornelius discloses the claimed limitations as described above (see claim 9). Jade further discloses sending a reply message from the second computer to the third computer once the firewall-opening packet has been sent (see for example; fig 4 and col 4 ln 37-49 and 5 ln 3-24). As for a start message from the third computer to the first computer in response to the reply message, the start message instructing the first computer to send the direct communication packets directly to the second computer through the window in the firewall, Jade discloses that the third computer is used to setup data connection between the first and second computers (see col 4 ln 1-14 and ln 25-39). One of ordinary skill in the art at the time of the applicant's invention would have realized that such a start for instructing the first computer to send direct communication packets directly to the second computer through the window in the firewall must be produced to allow the first computer to fulfill such a request.

As per claim 13, Jade-Cornelius discloses the claimed limitations as described above (see claim 12). Jade further discloses sending the call request and sending the reply message through communicating with a port of the third computer (see for example; col 4 ln 24-28). Cornelius further discloses sending the direct communication packets comprises sending a flow of UDP packets from a first UDP port of the first computer to a second UDP port of the second computer (see for example; paragraph 33 and fig 4) and control information using TCP (see for example; paragraph 33). One of ordinary skill in the art at the time of the applicant's invention would have realized that in such a combination, control information passes through a third computer and that direct communication would be between the first and second computer. The use of TCP for such communication of control information is advantageous because it is a well known protocol used over the Internet for communication between peers and the Internet. Jade further discloses that the third computer is connected to the Internet (see for example; col 3 ln 23-27). Therefore, one of ordinary skill in the art at the time of the applicant's invention would have realized the control and data packet communication as taught by Cornelius within the system of Jade.

As for communication with port 80 of the third computer using TCP, Cornelius further discloses port 80 being assigned for web traffic. Jade discloses third computer being connected through the Internet (see for example; col 3 ln 23-29). One of ordinary skill in the art at the time of the applicant's invention would have realized that such communication through port 80 of the third

computer to be through port 80 based on the standards of port assignments as

set forth in Cornelius (see for example; paragraph 31).

As per claim 14, Jade-Cornelius discloses the claimed limitations as

described above (see claim 13). Cornelius further discloses the first UDP port is

included in the first address of the message sent (see for example; paragraphs

34-52), wherein the second UDP port is included in the start message from the

third computer to the first computer (see for example; communicate UDP port

number, paragraph 52). As for communication between the third computer and

different messages, such a data flow for communicating proper UDP port

numbers of the first and second UDP ports must be present in the Jade-

Cornelius combination to establish correct UDP ports for transmission of media

stream.

Cornelius further discloses direct communication between two computers

using UDP packets comprising of a firewall-opening packet including both the

first address with the first UDP port and a second address with the second UDP

port (see for example; paragraphs 34 and 52), wherein the window in the firewall

is a window for UDP packets between the first UDP port of the first computer and

the second UDP port of the second computer (see for example; paragraph 52).

As per claim 15, Jade-Cornelius discloses the claimed limitations as

described above (see claim 14). Jade further discloses sending a first register

message from the first computer to the third computer (see for example; fig 4 and col 3 ln 37-49), the first register message including an indication of the first UDP port; storing the indication of the first UDP in association with a registration entry for the first computer in a registration directory accessible by the third computer (see for example; fig 4). The indication of the first UDP is to be inherent to establish communication using UDP between two computers. As for sending a second register message from the second computer to the third computer, the second register message including an indication of the second UDP port; and storing the indication of the second UDP port in association with a registration entry for the second computer in the registration directory accessible by the third computer, whereby the first and second computer register with the third computer, Cornelius further discloses such a second register message (see for example; paragraphs 47-48). When using UDP, it is well known in the art to need to know both a source and destination UDP port for establishing communications between the two computers between the specified ports. Such a second message is inherent to the direct communication between two computers using UDP as described above (see claims 8 and 9).

As per claim 16, Jade-Cornelius discloses the claimed limitations as described above (see claim 15). Cornelius further discloses sending direct communication packets from the second UDP port of the second computer to the first UDP port of the first computer, whereby two-way communication is

established directly between the first and second computers (see for example; fig 4 and paragraph 34). As for the assistance of a third computer, such establishing of a two-way communication with assistance of the third computer is disclosed by the Jade-Cornelius combination (see claims 8 and 9).

As per claim 17, Jade-Cornelius discloses the claimed limitations as described above (see claim 16). Cornelius further discloses creating a second window in a second firewall that protects the first computer when a first of the direct communication packets is sent from the first computer to the second computer (see for example; firewall 32A, paragraph 39 and fig 3), the second window allowing direct communication packets from the second computer to pass through the second firewall (see for example; second media stream, paragraph 39). Jade discloses use of a firewall between one computer and a third computer. One of ordinary skill in the art would have been able to repeat such window opening of Jade-Cornelius as disclosed above (see claims 9-10) to further open a window of a second firewall taught by Cornelius (see fig 3). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the second firewall of Cornelius within the system of Jade because it would have provided a means of security through firewalls for two computers while still being able to communicate with each other. The second firewall will provide added filtering of un-requested packets and thus provided extra security to the first computer.

As per claim 18, Jade-Cornelius discloses the claimed limitations as described above (see claim 17). Jade further discloses a firewall blocking packets as an un-requested packet. As for discarding the firewall-opening packet at the second firewall, the second firewall blocking the firewall-opening packet from reaching the first computer, Cornelius further discloses a need to configure communication through the second firewall (see for example; paragraph 39). Discarding un-requested packets at firewalls is well known in the art to be the purpose of such firewalls. Cornelius realizes that packets will be discarded if the second firewall is not configured correctly to receive such a packet. Therefore, one of ordinary skill in the art at the time of the applicant's invention would have realized that such blocking and discarding at the second firewall must occur before connections are established.

5.   Claims 10-11 rejected under 35 U.S.C. 103(a) as being unpatentable over Jade et a (hereinafter Jade), US Patent 5,944,823, in view of Cornelius et al (hereinafter Cornelius), US Publication 2003/0165136, and further in view of view of Berg et al (hereinafter Berg), US Patent 6,674,713.

As per claim 10, Jade-Cornelius discloses the claimed limitations as described above (see claim 9). Jade further discloses data connection segments (packet) for opening a firewall window (see for example; col 4 ln 25-39) Jade-Cornelius are silent of the firewall-opening packet (data segments) being a null

packet having no data in a data payload. Jade-Cornelius does not explicitly

teach the firewall-opening packet being a null packet having no data in a data

payload. Berg et al discloses a means of communication involving the use of null

packets (see for example; col 18 ln 24-33 and col 18 ln 42-48). The use of null

packets is well known in the art as a means of transmitting a packet containing

header information for synchronization or to keep a communication connected

without using communication bandwidth. Such null packets are for administrative

purposes of communications, which requires minimal bandwidth of a

communications link and are used in situations where no user data is required

(see for example; Berg, col 22 ln 25-44). One of ordinary skill in the art at the

time of the applicant's invention would have been able to use such a null packet

as the "data segment" in the Cornelius-Jade combination to open a hole in the

firewall. Furthermore, one of ordinary skill in the art would have realized that

such opening by sending an initial UDP packet is well known in the art and that

such packets do not require any payload information to be present to perform

transmission. Furthermore, Jade does not explicitly state any payload

information necessary in the data segments for opening a hole in the firewall and

that such a null packet is inherently known in the art to have no data in a data

payload. It would have been obvious to one of ordinary skill in the art at the time

of the applicant's invention to combine the null UDP packet of Berg within the

Cornelius-Jade combination because it would have provided an efficient means

of opening a hole in the firewall wherein the packet takes up the minimum

bandwidth in establishing the communication link.

As per claim 11, Jade-Cornelius discloses the claimed limitations as

described above (see claim 10). Cornelius further discloses the first address of

the first computer being sent in the message from the third computer to the

second computer comprises an ID address and a UDP port of the first computer

(see for example; paragraph 56). Such information relates to establishing direct

communication between two computers using UDP packets as described above

(see claims 8 and 9) and are rejected under the same rationale.

6.   Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Cornelius et al (hereinafter Cornelius), US Publication 2003/0165136, in view of Jade et

al (hereinafter Jade), US Patent 5,944,823.

As per claim 19, Cornelius discloses network connection means for

transmitting and receiving packets from an Internet (see for example; fig 3) the

packets including TCP packets from an external manager, and UDP packets

from the remote peer; (see for example; external mechanism, paragraph 39 and

control message via TCP, paragraph 32),

Firewall-opening packet means, receiving a TCP message from the

external manager with a remote UDP port of the remote peer (see for example;

paragraphs 39 and 50), generating a firewall-opening packet that is destined to

the remote port of the remote peer (see for example; paragraph 50); wherein a

window in the firewall is created when the firewall-opening packet is sent, the

window allowing packets from the remote peer to reach the network connection

means through the firewall (see for example; paragraph 30); and direct

communication means, coupled to the network connection means, for sending

UDP packets from the local UDP port to the remote UDP port of the remote peer

through the window in the firewall created by the firewall-opening packet,

whereby the window in the firewall is created for use by the remote peer (see for

example; fig 4 and paragraph 34)

As for the window in the local firewall being opened by the UDP packet

sent in response to the TCP packet from the external manager. Cornelius

discloses a system administrator setting the correct UDP port for communication

through the user firewall (see for example; administrator, paragraph 39). The

opening of a window in a firewall through a transmission of packets is well known

in the art as suggested by Jade. Jade discloses opening a hole in the firewall

through a packet transmission (see for example; col 4 ln 25-39). One of ordinary

skill in the art at the time of the applicant's invention would have realized that

such a means of configuring communication through a firewall would require

some means of opening a hole in the firewall and that the means of Jade can be

used as such a configuring step. It would have been obvious to one of ordinary

skill in the art at the time of the applicant's invention to combine the firewall

opening means of Jade within the system of Cornelius because it would have

provided a means of opening a hole in a firewall for communication with minimal

input from the user.

As per claim 20, Cornelius-Jade discloses the claimed limitations as

described above (see claim 19) and further discloses call request means for

using TCP packets to send a call request to the external manager (see for

example; paragraph 49), the call request identifying the remote peer, the external

manager sending a message identifying the local UDP port to the remote peer in

response to the call request (see for example; paragraph 50).

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

US Patent 6,687,245, to Fangman et al, discloses Internet telephony through

user firewalls.

US Patent 6,104,716, discloses a means of communication through firewalls over

the Internet.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Allen S. Wu whose telephone number is 703-305-0708.

The examiner can normally be reached on Monday-Friday 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Vu can be reached on 703-305-4393. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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